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Intelligence, Surveillance, and Reconnaissance (ISR) Planning Capability

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Human Effectiveness Directorate
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June 2006

Interim Report for January 2004 to June 2006

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Air Force Research Laboratory
Human Effectiveness Directorate
Warfighter Interface Division
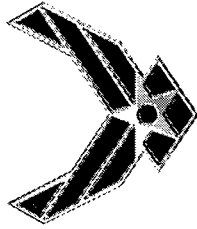Cognitive Systems Branch
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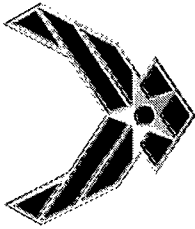| 16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Gilbert G. Kuperman
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ISR Planning Capability

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THE AIR FORCE RESEARCH LABORATORY
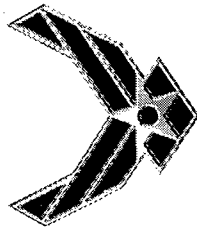LEAD I DISCOVER I DEVELOP I DELIVER
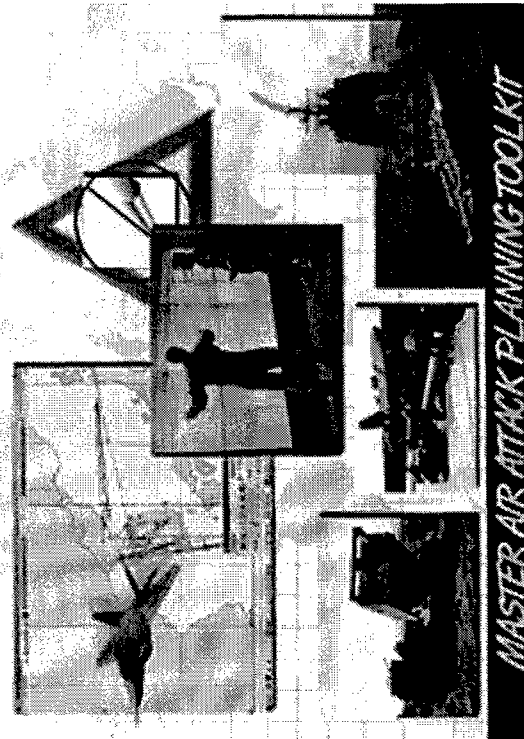
ISR Planning Capability

- **Project Description:** Development and demonstration of shared battlespace awareness display capability between the ISR and Combat Operations Divisions of the AOC.

- **What does it do?** Conceptual displays to support ATO ISR collection plan execution monitoring, adjustment, and retasking

- **Products and benefits to the customer:**

  - Enhanced capability to visualize actual ISR collection activities and plans in spatial and temporal contexts

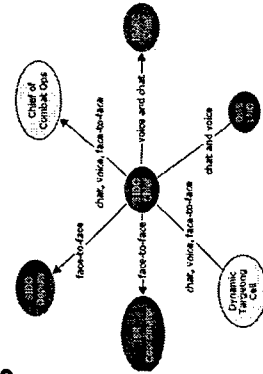 - Current Synchronization Matrix is static and referenced only to planned activity over time

Information Requirements Analysis for Dynamic Management of ISR Assets

Resource Information

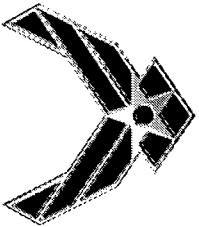|	FY04	FY05	FY06	FY07	FY08
	$250K	$181K	$200K	$250K	$200K

Milestones:

FY04: Analyses of MAAP TK and WebTAS
FY05: Decision Analysis of ISR Managers
FY06: Information Requirements Analysis-based display concepts and mission scenario
FY07: HSI Concept Designs
FY08: Refined HSI Concepts

Note: Actual FY06 funds = 90% of programmed

Products & Benefits to Customer

• Improved situation awareness for the planning, monitoring, and control of ISR assets

• Improved decision support for ISR planning and dynamic management

• Improved insight into the impact on ATO execution of sensor re-tasking

• Common tool for Intel and Combat Operations Divisions (in AOC) for ATO generation support

Description

MASTER AIR ATTACK PLANNING TOOL KIT

• Human-system interface enhancements for MAAP Toolkit / WebTAS to better support ISR collection planning and dynamic ISR management

• Cognitive Task Analysis

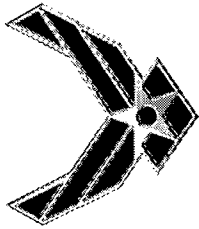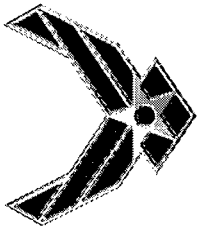• Human-Centered Design and Assessment Methodologies

Issues

- Follow on 6.2 effort is programmed ("Dynamic Multi-Sensor Mission Planning and Exploitation") but does not begin until FY11, resulting in two year "gap"

Transition and Follow on Work

- **Transition:**

  - **ISROE:** "Dynamic ISR Warfighter Demonstrations" was approved on 27 Feb 06 for FY07/08 6.3 funding
    - Project introduction briefing provided to AFC2ISRC/ISRB/CC

  - **Commander's Predictive Environment (CPE):**
    - Possible (Being explored with Dr. Miller)

  - **Human Factors for the AOC (HF-AOC):**
    - Possible (Being explored with Mr. Monk for expansion to include Strategy and Combat Plans Divisions)

- **Follow on:** FY11 start for "Dynamic Multi-Sensor Mission Planning and Exploitation"

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Funding and Execution

- OBS: 100%

- Expenditures/Invoice: 78% (Cumulative [as of 2/28/06])